

5 Agriculture and von Thünen – Part 1

Name: _____ Class: _____ Date: _____

Vocabulary 词汇

Write each word three times. 把每个单词抄写三遍。

English	中文	Write it 3 times (English)
First Agricultural Revolution	第一次农业革命	_____
Second Agricultural Revolution	第二次农业革命	_____
Green Revolution	绿色革命	_____
Subsistence agriculture	自给农业	_____
commercial agriculture	商业农业	_____
Intensive	集约农业	_____
extensive	粗放农业	_____
shifting cultivation	迁移农业	_____
pastoral nomadism	游牧	_____
plantation agriculture	种植园农业	_____
Von Thünen	杜能	_____
clustered	集聚型	_____
dispersed	分散型	_____
linear	线状型	_____
Agribusiness	农业综合企业	_____

English	中文	Write it 3 times (English)
Monoculture	单一栽培	_____
Food deserts	食物荒漠	_____

Recall

You know food is grown somewhere and eaten elsewhere, and that farming looks different in different countries.

This sheet gives you the classifications and the one model you must be able to apply.

New ideas

■ 1 The agricultural revolutions

The **First Agricultural Revolution** 第一次农业革命, the Neolithic domestication of plants and animals, made permanent settlement possible.

The **Second Agricultural Revolution** 第二次农业革命 accompanied the Industrial Revolution: improved tools, crop rotation, selective breeding and better transport raised yields and freed labour for the factories.

The **Green Revolution** 绿色革命 of the mid-twentieth century introduced high-yield seed varieties, chemical fertiliser, pesticides and irrigation. It raised output enormously, especially in Asia, at the cost of chemical dependence, water depletion, and an advantage to farmers who could afford the inputs.

■ 2 Ways of classifying farming

Subsistence agriculture 自给农业 feeds the farmer's own household; **commercial agriculture** 商业农业 produces for sale.

Intensive 集约农业 uses a great deal of labour or capital on a small area (market gardening, wet rice); **extensive** 粗放农业 uses little on a large area (ranching, shifting cultivation).

Named systems worth knowing: **shifting cultivation** 迁移农业 with its **slash-and-burn** clearing; **pastoral nomadism** 游牧 in dry lands; **plantation agriculture** 种植园农业, a commercial monoculture typically established under colonial rule; **Mediterranean agriculture** with its characteristic olives, grapes and citrus.

■ 3 Von Thünen's model

Von Thünen 杜能 explained the RING pattern of land use around a market. Land closest to the market goes to whatever pays the highest rent, and what pays most is set by transport cost and perishability.

The classic rings, from the centre out: market gardening and dairying (perishable,

must be close); forestry (heavy, costly to move — in his day, for fuel); field crops (durable, cheaper to transport); ranching (lowest value per unit area, so it takes the cheapest land).

The model assumes a flat plain, one market, uniform soil and one transport mode. Modern refrigeration and roads weaken it — which is a valid evaluation point, not a reason to ignore it.

■ 4 The rural landscape

Survey systems shape the map: **metes and bounds** follows natural features; the **township-and-range** grid produces the rectangular fields visible across the American Midwest; **long-lot** gives each holding narrow river frontage.

Settlement patterns are **clustered** 集聚型, **dispersed** 分散型 or **linear** 线状型, and each reflects how land was allocated and how farming was organised.

■ 5 Modern issues

Agribusiness 农业综合企业 integrates farming with processing and distribution under corporate control. **Monoculture** 单一栽培 raises efficiency and lowers resilience to disease. **Food deserts** 食物荒漠 are areas with poor access to affordable fresh food. **Sustainable agriculture** aims to maintain yields without depleting soil, water or biodiversity.

Practice

Try these in order. The methods are all above.

5.1 State one benefit and one cost of the Green Revolution. [2]

5.2 Distinguish between intensive and extensive agriculture. [2]

5.3 Explain why market gardening occupies the ring closest to the market in von Thünen's model. [2]

5.4 State one assumption of von Thünen's model that limits its use today. [2]

5.5 Explain one risk of monoculture. [2]
